

MATERIALS & TESTS BULLETIN

NCDOT



SMALL QUANTITY (SQ) DENSITY SAMPLES

Sampling - QMS Manual 10.8.2

A modified density acceptance process shall be used for individual structure replacements and projects with 1500 linear feet or less of roadway pavement. The contractor will randomly locate and cut a minimum of two core samples per pavement layer per day. If the project includes a structure (bridge, culvert, etc.) with asphalt pavement on either side of the structure placed on the same day, then the pavement shall be divided into two test sections (one test section on each side of the structure). One core sample per pavement layer will be required from each of the two test sections. These SQ cores shall be cut in the presence of the NCDOT technician who will label the core samples as SQ-1, SQ-2, etc. and record the SQ core information on a QA-5 Form. No Verification or Dispute Resolution core samples are required for Small Quantities density acceptance.

Delivery

SQ cores should be delivered to the M&T Lab for testing within three business days. If a contractor's technician transports the cores back to the QC lab for pick up by DOT personnel or transports the cores directly to the M&T Lab, the NCDOT technician must bag and tag the samples before transferring custody to the contractor in accordance with QMS Manual Section 10.7.1.

The NCDOT Technician should acquire cylinders, sample bags, forms, metal tags, and crimping tool from M&T prior to beginning paving operations.

Acceptance and Reporting

For acceptance purposes, the results of the core samples will be averaged and compared to the minimum density specification for that mix type. Asphalt Pavement subject to the Small Quantities Density Acceptance is considered "Other" construction category. The M&T Lab will provide the test results to the Resident Engineer's Office and the Contractor's QC lab within one business day of receiving the samples.

WHAT'S INSIDE THIS ISSUE:

*Small Quantity
Samples*

*How to Prepare your
samples for M&T Lab*

BULLETIN SIGNUP CODE:



HOW TO PREPARE YOUR SAMPLES FOR M&T LAB

QMS Manual 10.7.1



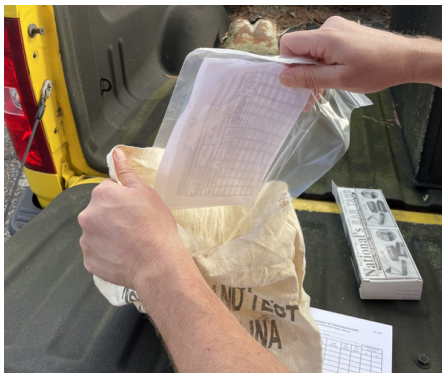
1. Cores labelled and placed inside cylinders



2. QA-5 Form completed with matching tag number



3. Completed QA-5 goes inside plastic bag



4. Bag with QA-5 goes inside cloth bag with the cores (inside their cylinders)



5. Use a tag to close the cloth bag. The tag number should be written on the QA-5 form.



6. Crimp the metal tag to seal the cloth bag

WHERE TO GET YOUR SUPPLIES?



The DOT representative can acquire all the necessary supplies (bags, tags, and cylinder molds) from the Materials and Tests stock room.

Helpful Links:

- [2025 QMS Manual](#)
- [NCDOT Spec Book](#)
- [QA-5 Form](#)



CONTACT US

FIELD SERVICES ENGINEER

Jim Sawyer, PE jcsawyer@ncdot.gov

PAVEMENT SPECIALIST SUPERVISOR

John Flowers, Jr. jtflowers@ncdot.gov

DIVISION 1 AND 2

Donnie Best dgbest@ncdot.gov

DIVISION 3 AND 4

David P. Mercer dpmercer1@ncdot.gov

DIVISION 5 AND 7

Norman A. Abrams naabrams@ncdot.gov

DIVISION 6 AND 8

Red Simmons jwsimmons1@ncdot.gov

DIVISION 9 AND 11

Thomas E. Paschal tepaschall@ncdot.gov

DIVISION 10 AND 12

Randall Ashmore ext-jrashmore2@ncdot.gov

DIVISION 13 AND 14

Dale Buchanan rdbuchanan@ncdot.gov

IF YOU HAVE A TOPIC YOU WOULD LIKE TO SEE IN A FUTURE ISSUE, PLEASE EMAIL US AT NFLETCHER@NCDOT.GOV